

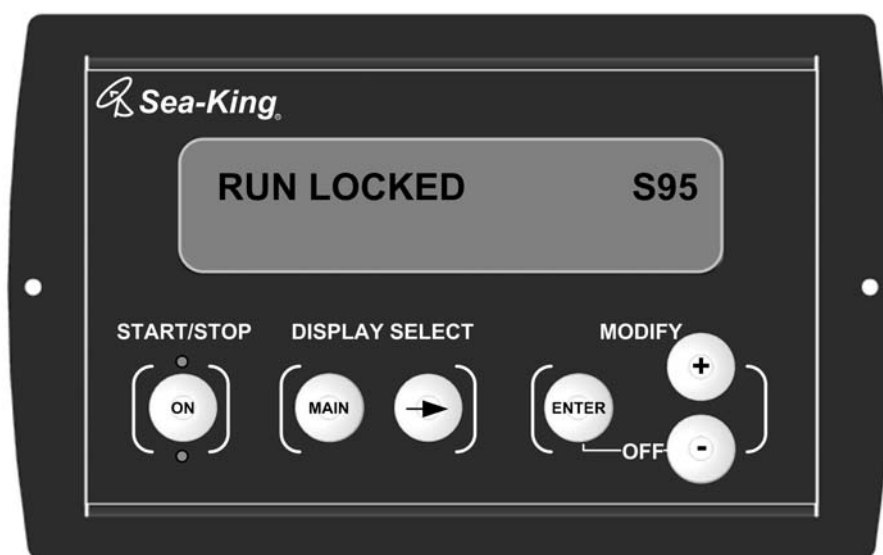


Gyro Stabilized Satellite TV Antenna

Model 1500-HD

Model 1800-HD

Installation and Operating Instructions



Digital TV Solutions for Mobile Markets

11200 Hampshire Avenue South, Bloomington, MN 55438-2453
Phone: (952) 922-6889 Fax: (952) 922-8424

www.kingcontrols.com



IMPORTANT!

The satellite TV market is expanding and changing. The information in this manual was accurate at the time of printing. If your Sea-King does not operate as outlined in this manual please call King Controls at (952) 922-6889 or visit our website at www.kingcontrols.com.

Please read this entire manual before beginning the installation.

DISH NETWORK - Bell TV: If you plan to use the Sea-King with multiple satellite programming and would like to use the auto-switching feature, your receiver must be configured.

To configure the DISH receiver for automatic satellite switching, the antenna must be on the ground, dock or motionless platform with no movement (see pages 25-27).

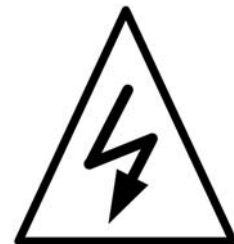
DIRECTV: This antenna will receive available HDTV programming from DIRECTV Ku band satellites at 101°, 110° and 119° with a properly installed HD converter accessory #9747 (included). It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.

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ELECTRICAL HAZARD WARNING!

The coax cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.

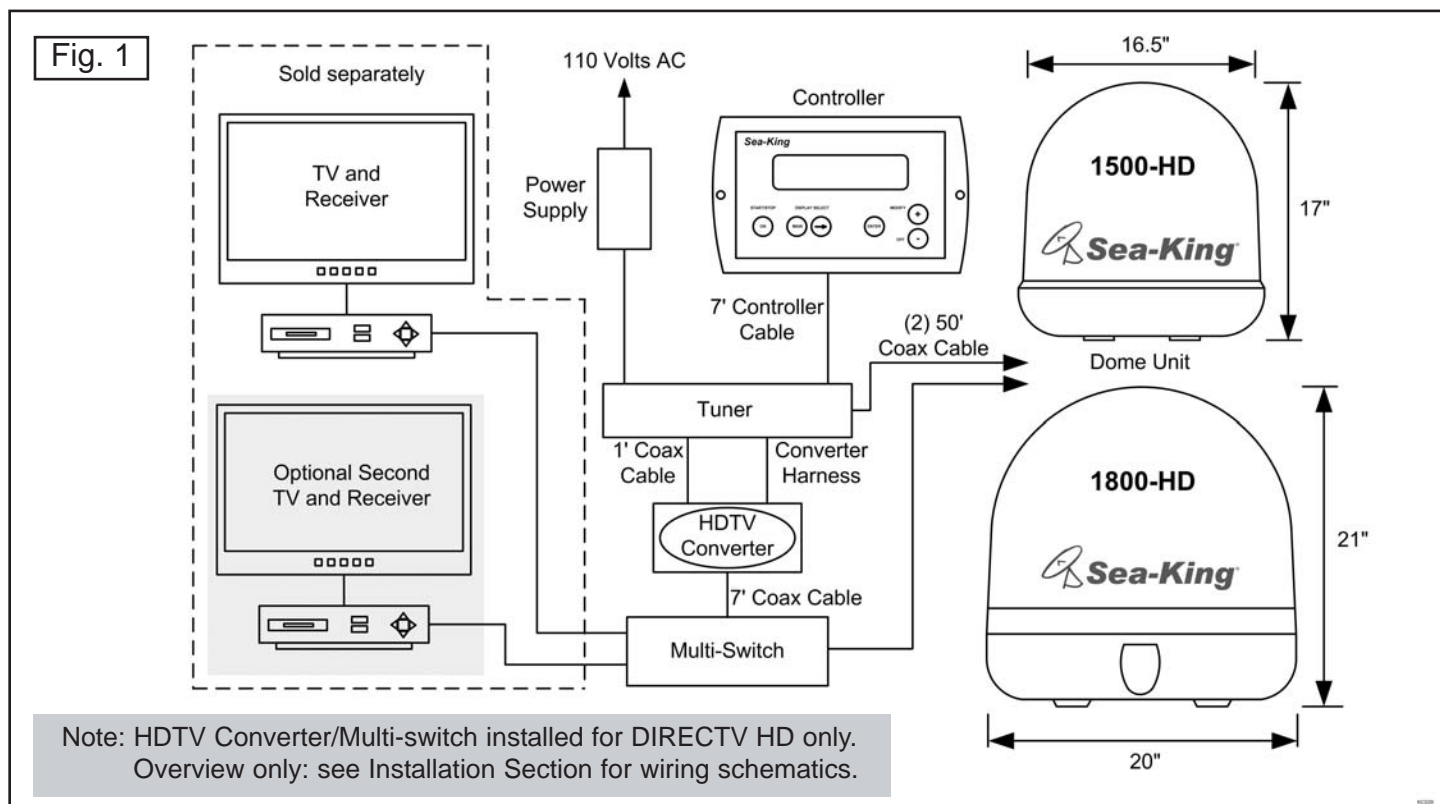


The Sea-King Fully Stabilized Marine Satellite System includes 6 main components (**Fig. 1**).

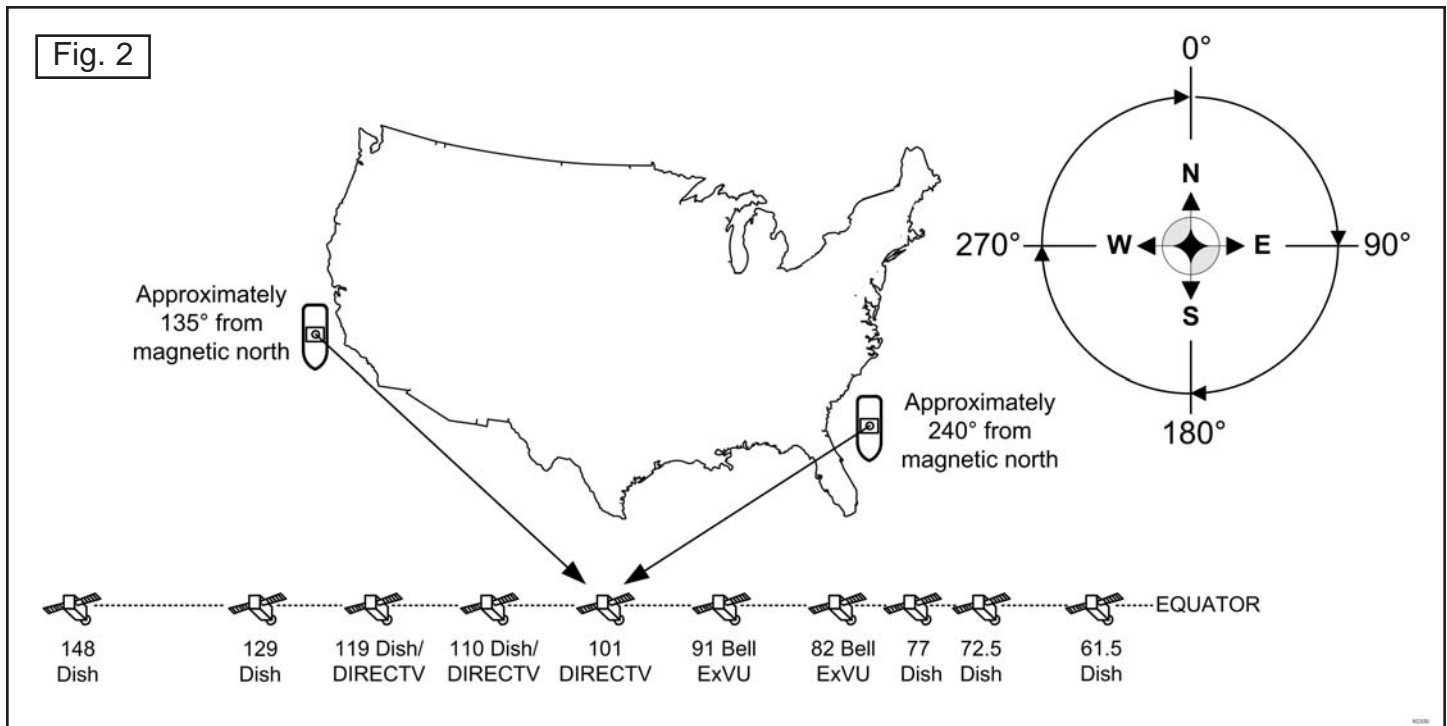
Dome (Antenna) Unit	Mounted on the vessel. The dish is covered by a protective dome that keeps operational components free from the elements.
Controller	Located in the vessel. Used to activate and monitor the system, and access programming and diagnostic information.
Tuner	Located in the vessel. Decodes the satellite signal so the Sea-King locks onto and tracks the correct satellite.
HDTV Converter Box	Enables viewing of HDTV signals from DIRECTV 110 satellite.
Multi-switch	Installed for multiple receiver hookup (DIRECTV only).
Power Supply	Located in the vessel. Supplies proper operating voltage to the Sea-King.

Note: A TV, satellite receiver, and program subscription are also required for satellite TV viewing (sold separately).

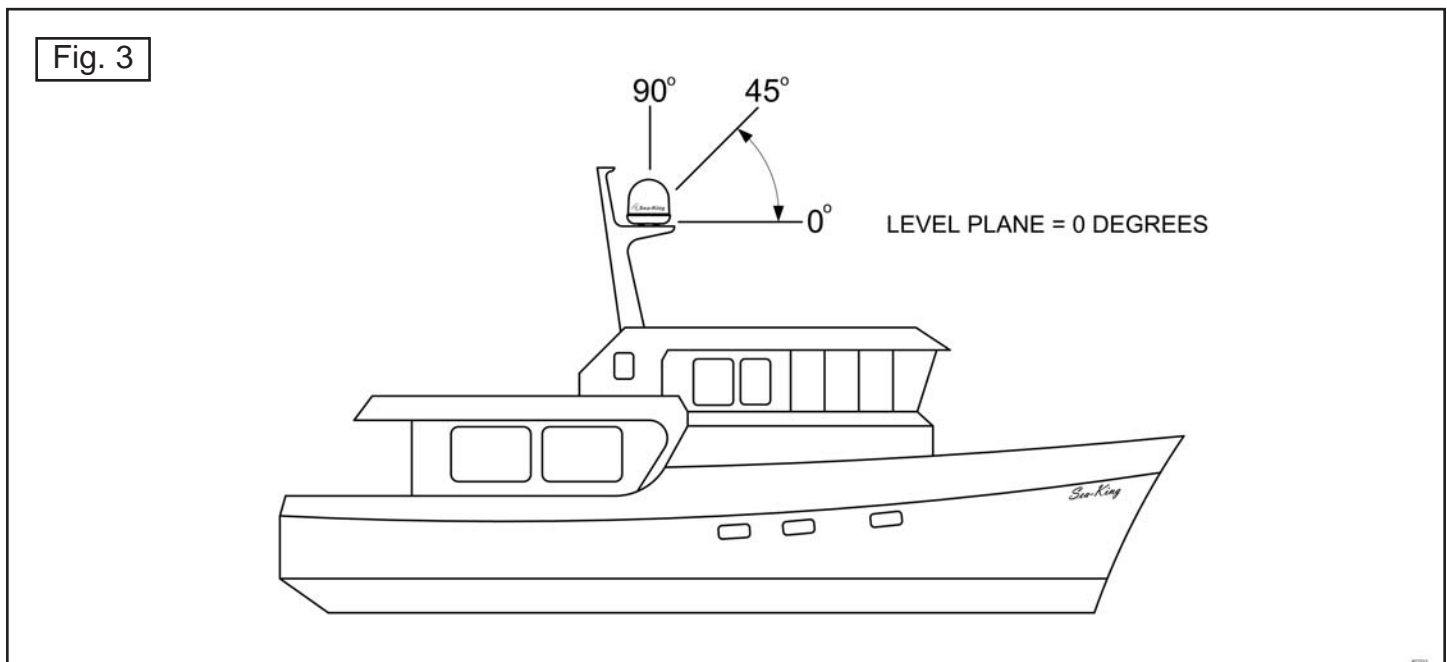
You must have an HD Receiver, HDTV Monitor (TV), the proper HD cables (component video or HDMI) and the appropriate programming subscription in order to view HD programming (sold separately).



AZIMUTH: Angle in degrees measured clockwise from Magnetic North (0°) (**Fig. 2**).



ELEVATION: Angle in degrees measured from a level plane (**Fig. 3**).



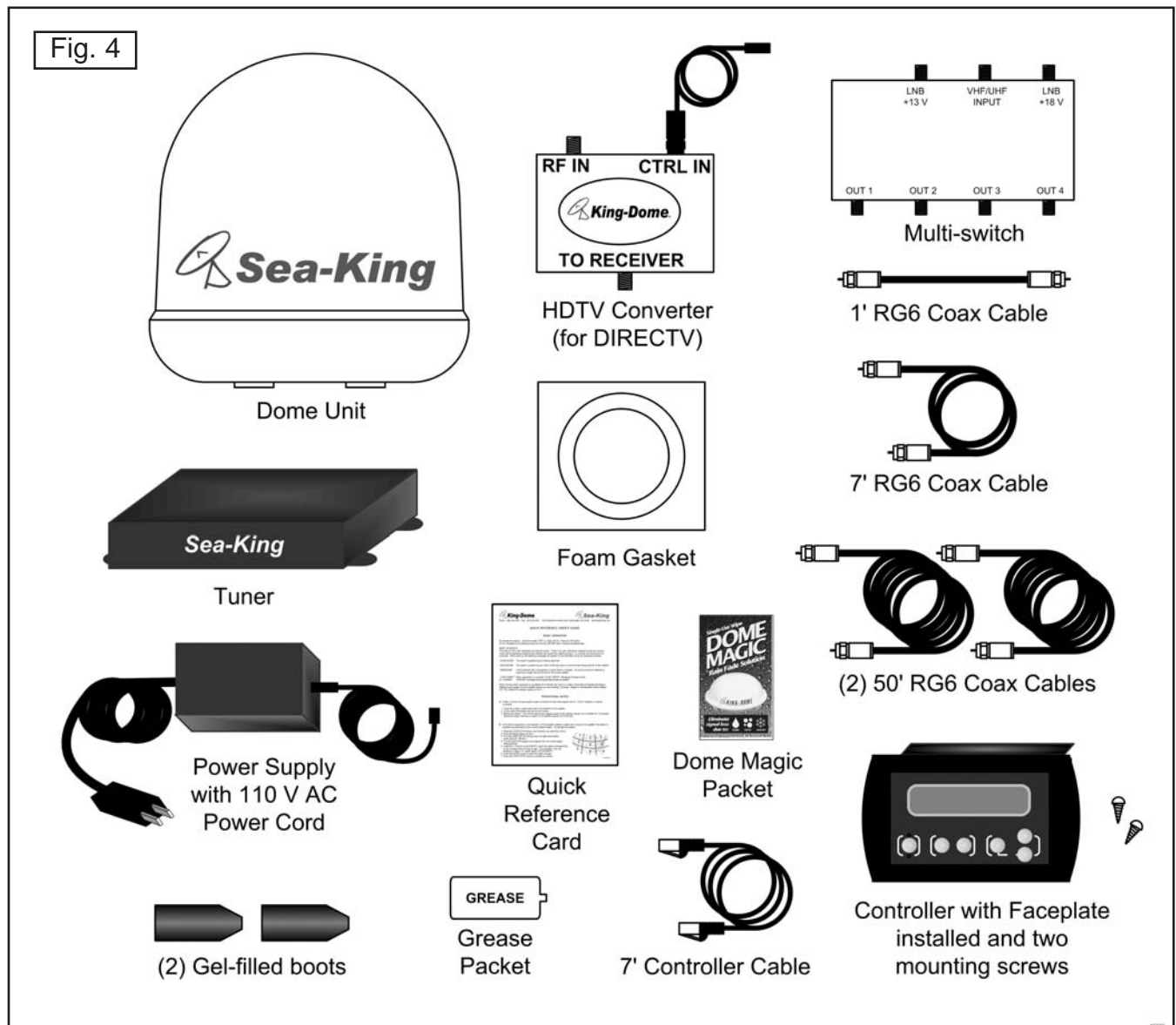
SIGNAL STRENGTH: Intensity of electronic signal received from the satellite transmission.

TOOLS AND MATERIALS REQUIRED

- drill and drill bit set
- tape measure
- 7/16" open end wrench (coax connections)
- 5/32" allen wrench, channel lock or pliers (to remove shipping bolt)
- 1/8" allen wrench or phillips screw driver (to remove dome cover)
- appropriate fasteners and tools to install all components and wiring
- adhesive sealant, compatible with vessel material

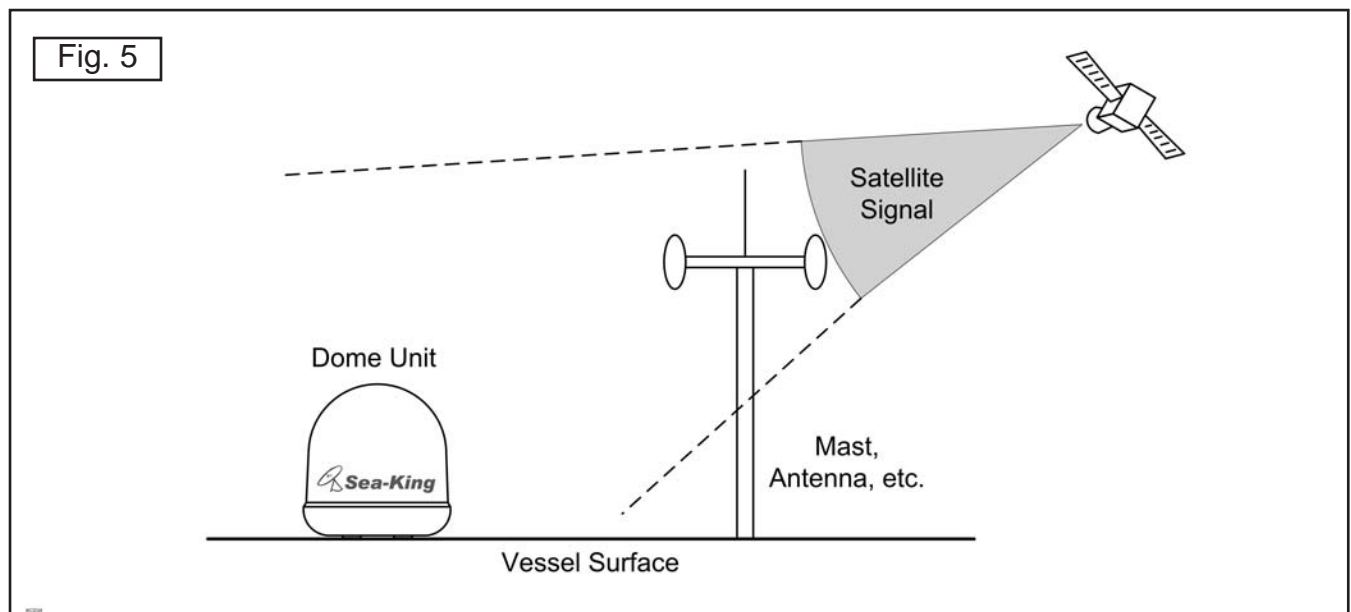
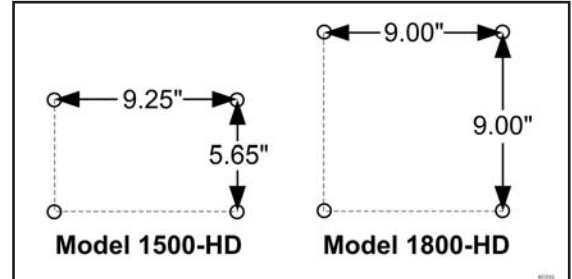
KIT CONTENTS

1. Unpack and identify all components (**Fig. 4**).



DOMES LOCATION

1. Select an area on the vessel for the dome unit, keeping in mind the coax cables will enter the vessel through the surface directly beneath the dome unit. Use the following criteria:
 - a) The shortest distance between the dome unit and the main satellite receiver is most desirable.
 - b) The dome unit requires a 16.5" (**model 1500-HD**) or 20" (**model 1800-HD**) diameter mounting area on the vessel surface. You may also use an industry standard mount. *(Call King Controls or visit www.kingcontrols.com for more information.)* Exact hole spacing is shown at right. Distances are to centers of holes.
 - c) The dome unit should never be mounted so that it is tilted more than two degrees in any direction.
 - d) Keep the dome unit as far away from the radar as possible, and if possible above the level of the radar.
 - e) The dome unit should be mounted as close as possible to the center of the vessel (fore-aft and side to side).
 - f) The mounting surface must be strong enough not to flex under the weight of the unit or from vessel vibrations.
 - g) There must be no "line of sight" obstructions from this location. Items such as masts or radar antennas that are too close to the dome unit may prevent the satellite signal from reaching the dish (**Fig. 5**).

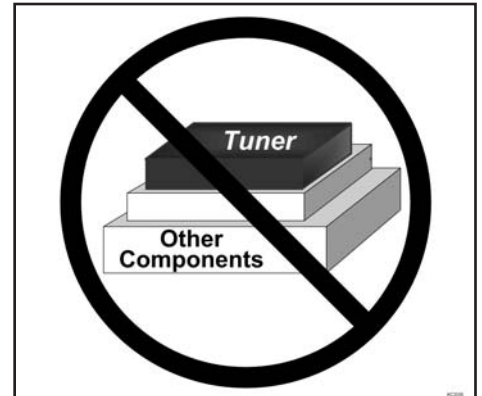


COMPONENT LOCATION

1. Select the location of the internal components using the following criteria:

- a) The Controller, Tuner, HDTV Converter, Multi-switch and Power Supply should be in the same general vicinity of the main satellite receiver, **AND ACCESSIBLE FOR OPERATION AND MAINTENANCE PURPOSES.**

- b) The Tuner should not be stacked directly on top of other electronics. If located in a cabinet or other enclosure, make sure there is adequate ventilation around the unit. *(If using the Tuner mounting feet see page 17.)*



- c) The Controller should be conveniently located for the end user. *(If using the Wall Mount Faceplate, see page 16.)*



- d) All components should be secured so they do not shift or bounce around during vessel motion.

2. Place the components in the selected areas.

REMOVE SHIPPING RESTRAINTS

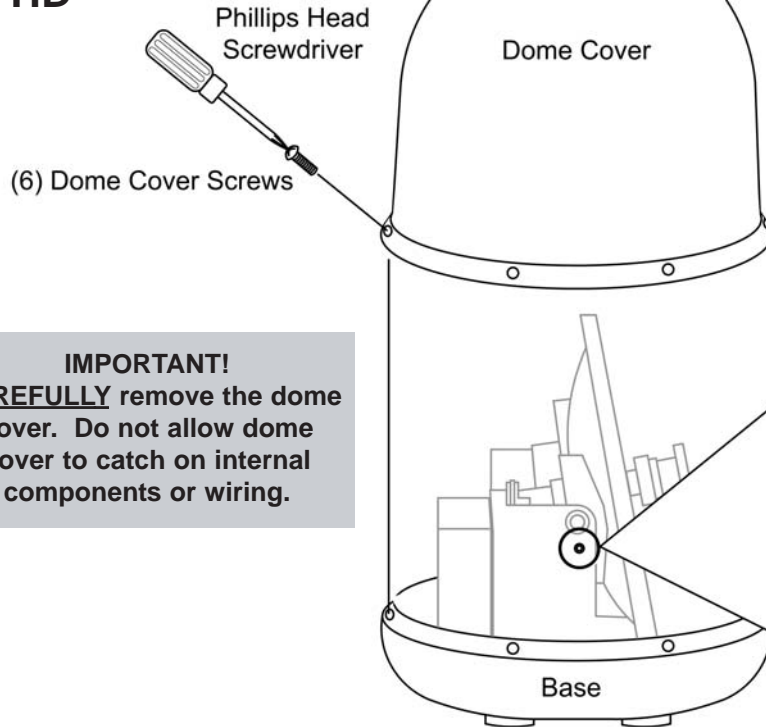
Note: Reference appropriate figure on next page for your model number:

Model 1500-HD: see Fig. 6A
Model 1800-HD: see Fig. 6B

1. Remove and save the dome cover screws **(Figs. 6A and 6B)**.
2. Carefully remove the dome cover. Do not allow dome cover to catch on internal components or wiring.
3. Remove and discard the shipping bolt.

Fig. 6A

1500-HD



IMPORTANT!
CAREFULLY remove the dome cover. Do not allow dome cover to catch on internal components or wiring.

IMPORTANT!
The shipping bolt must be removed prior to installation.

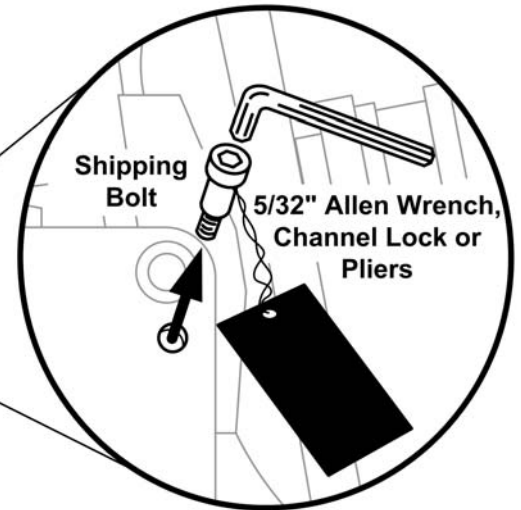
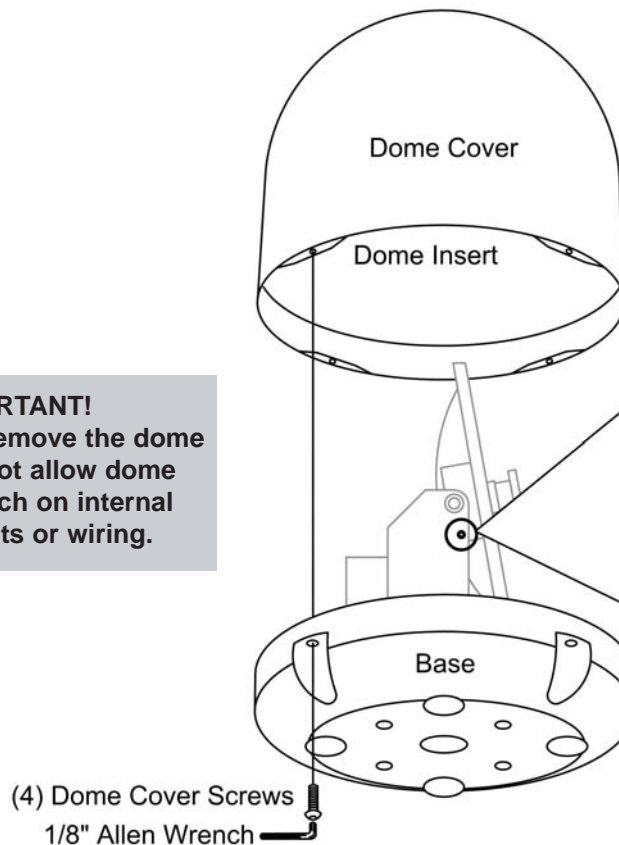


Fig. 6B

1800-HD



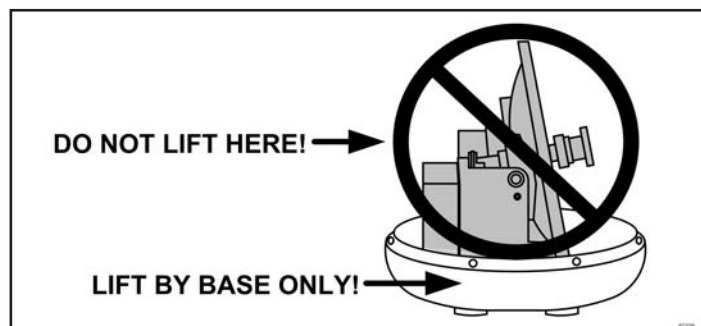
IMPORTANT!
CAREFULLY remove the dome cover. Do not allow dome cover to catch on internal components or wiring.

IMPORTANT!
The shipping bolt must be removed prior to installation.



EXTREMELY IMPORTANT!

NEVER lift the unit by the LNB assembly, Wave Guide assembly, or the dish.
Lift the unit by the base **ONLY**.

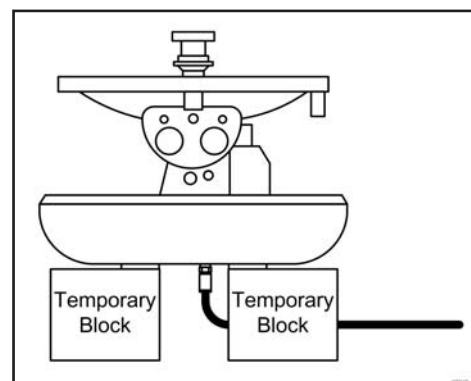


PRE-INSTALLATION CHECK

To verify proper operation of the components, perform a Pre-Installation Check as follows:

1. Place the dome unit in your chosen location and on its mounting pedestal. Temporarily secure the unit from falling. **DO NOT PERMANENTLY MOUNT THE DOME UNIT UNTIL YOU HAVE COMPLETED THE PRE-INSTALLATION CHECK ON THE NEXT PAGE.**

If mounting to the vessel surface, you will need to temporarily place the dome unit on a pedestal or blocks to perform the pre-installation check.



IMPORTANT! IF CONFIGURING THE RECEIVER FOR MULTIPLE SATELLITE SWITCHING WITH DISH NETWORK OR BELL TV, YOU MUST DO THE PRE-INSTALLATION CHECK ON A MOTIONLESS PLATFORM SUCH AS THE DOCK OR GROUND.

ELECTRICAL HAZARD WARNING!

The coax cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment.

Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



2. Use Figs.10-11 on pages 13-14 to determine your desired wiring configuration.
TEMPORARILY connect system as outlined.

If using both 50' coax, label the ends of one coax to avoid confusion when making the connections.

MAKE SURE TO CONNECT POWER LAST.

3. Verify system operates properly as described in Section 4 OPERATION, Page 18.

DISH NETWORK - BELL TV: If configuring the receiver for multiple satellite switching, do this now while the antenna unit is on a motionless platform (see page 25).

4. After verifying proper operation of the system, **DISCONNECT POWER FIRST** then all other components.

DOME INSTALLATION AND EXTERNAL WIRING

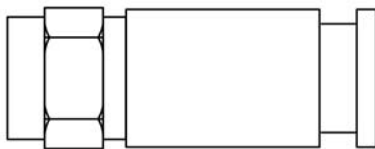
IMPORTANT! USE ONLY THE COAX CABLES SUPPLIED WITH THE SEA-KING.
COIL AND STORE EXCESS CABLE IN THE CABINET WITH THE COMPONENTS.
DO NOT CUT COAX.

If coax cable other than that supplied with the Sea-King is used, the following guidelines must be followed:

- 1) Ends must be terminated with SNAP-N-SEAL® connectors (Fig. 7.)
(DO NOT USE TWIST-ON OR HEX-CRIMPED CONNECTORS.)
- 2) Cable must be RG6 and rated at 2.2 GHz or higher.

Fig. 7

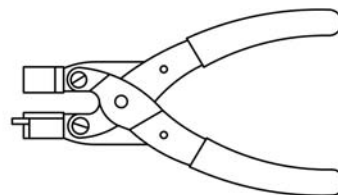
SNAP-N-SEAL® CONNECTOR



Thomas and Betts part # SNS 1P6

King Controls part # 10211

CRIMPER



Thomas and Betts part # SNSUTL

King Controls part # 10204

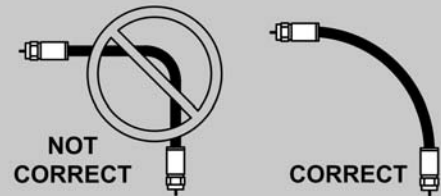
IMPORTANT! Rubber O-rings must be REMOVED from ends of all SNAP-N-SEAL® connectors.

IMPORTANT! Make sure power supply is disconnected from 110 volt source before continuing with permanent installation.

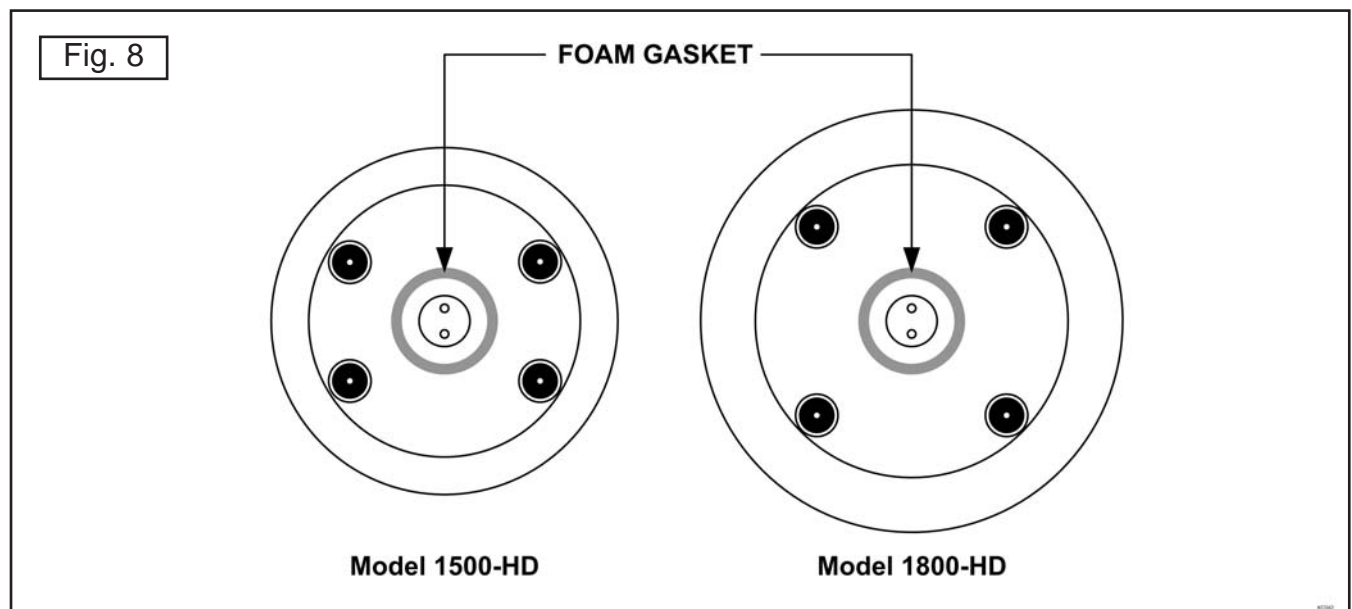
The installer is responsible for weatherproofing all holes in the vessel.

Note: The installer is responsible for determining the most appropriate fastener to secure the dome unit to the pedestal or vessel surface. Depending on the surface material, fasteners such as lag screws, sheet metal screws, toggle bolts and T anchors may be used.

AVOID SHARP BENDS WHEN ROUTING COAX!



1. Determine the path of the coax cable(s) from the dome unit to the internal components. Drill necessary holes (3/4") in vessel surface where coax will enter vessel. Route coax cable(s) leaving enough slack to attach to, and mount, dome unit.
2. Apply foam gasket to bottom of dome unit (**Fig. 8**).



Note: The Sea-King is wired for multiple receiver support. There are two coax ports on the bottom of the dome unit. The one labeled "MAIN" **MUST** be connected to the Tuner (IDB) in vessel. The unlabeled port can be used for an additional receiver (see page 13).

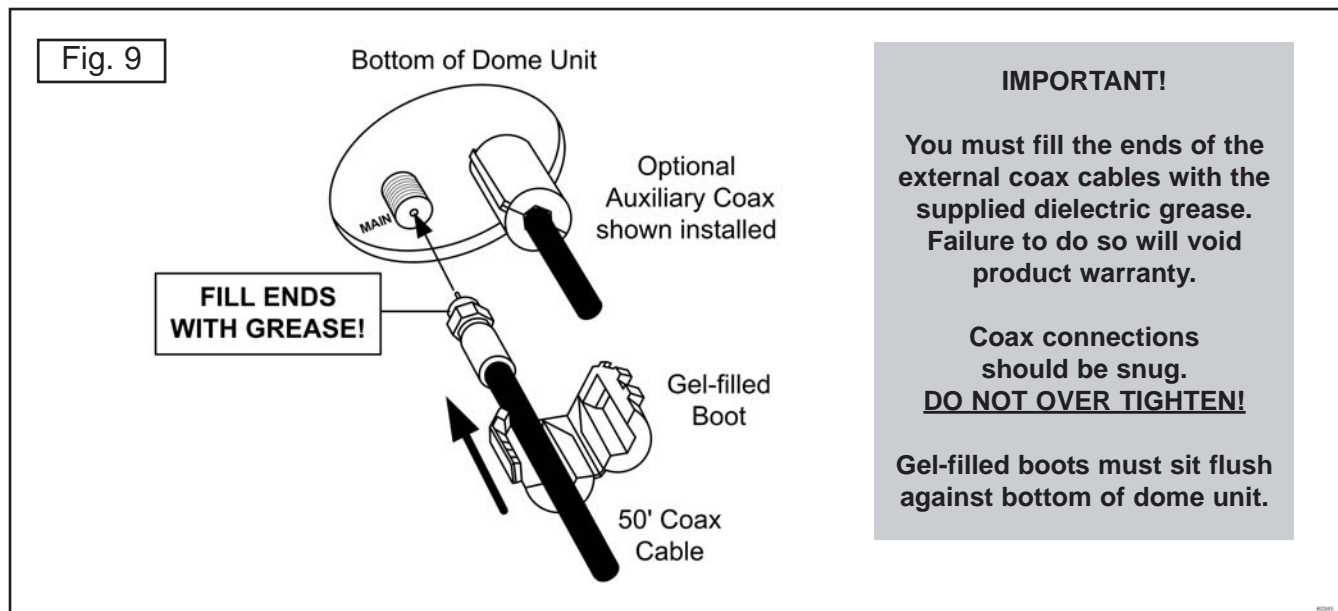
IMPORTANT! You must fill the ends of all external coax cables with the supplied dielectric grease. Failure to do so will void product warranty.

3. Fill end of coax cable that will connect to the MAIN port on the antenna unit with supplied dielectric grease. Connect this end of the coax cable to the MAIN port and tighten connection (**Fig. 9**).

If using a second (auxiliary) receiver, fill end of second coax cable and connect it to the unlabeled port. Tighten connection.

DO NOT OVER TIGHTEN CONNECTIONS.

4. Snap the gel-filled boots around the coax cables, then push flush against the bottom of the dome unit.



5. Use the four mounting holes inside the base to install the dome unit to the mounting pedestal or the vessel surface.
6. Secure coax every 12-18 inches and seal all openings where the coax enters the vessel so they are entirely waterproof (*inside and outside of the holes*).

IMPORTANT! The dome cover screws have a pre-applied locking compound on them.

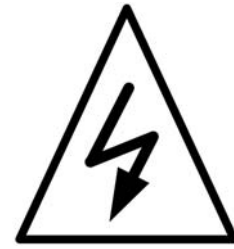
DO NOT APPLY ANY ADDITIONAL LOCKING COMPOUND TO THE SCREWS.
APPLYING ADDITIONAL COMPOUND WILL VOID THE WARRANTY AND MAY CAUSE CRACKING IN THE DOME COVER.

When re-installing the dome cover, **CAREFULLY** lower it onto the base, tilting it side to side as necessary to prevent damaging internal components.

7. Replace dome cover on base and align holes in dome cover with holes in base. Attach dome cover with dome cover screws saved earlier. Tighten **ALL** screws securely. **DO NOT APPLY ANY LOCKING COMPOUND TO THE SCREWS!**

ELECTRICAL HAZARD WARNING!

The coax cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



INTERNAL WIRING

IMPORTANT! The 50' coax from the "MAIN" port on the dome unit **MUST** be connected to the Tuner (IDB) in the vessel.

Coax connections should be snug. **DO NOT OVER TIGHTEN!**

CONNECT POWER SUPPLY LAST. When connecting the power supply cable to the tuner, push in the power supply cable end until it is flush against the back of the tuner.

You must apply a light coating of dielectric grease to the female threads of internal coax connections and to the center stinger of the male coax connections.

1. Choose your desired wiring configuration:

DISH Network/Bell TV:	Fig. 10, Page 13
DIRECTV	Fig. 11, Page 14

2. Make all connections as shown in the wiring diagrams.

Apply a light coating of dielectric grease to the female threads of internal coax connections and to the center stinger of the male coax connections.

ALWAYS CONNECT THE POWER SUPPLY LAST.

Note: When the power supply is connected, the controller should turn on for 3 seconds and then turn off. If the controller stays on, Press the ENTER and "-" buttons simultaneously to turn unit off.

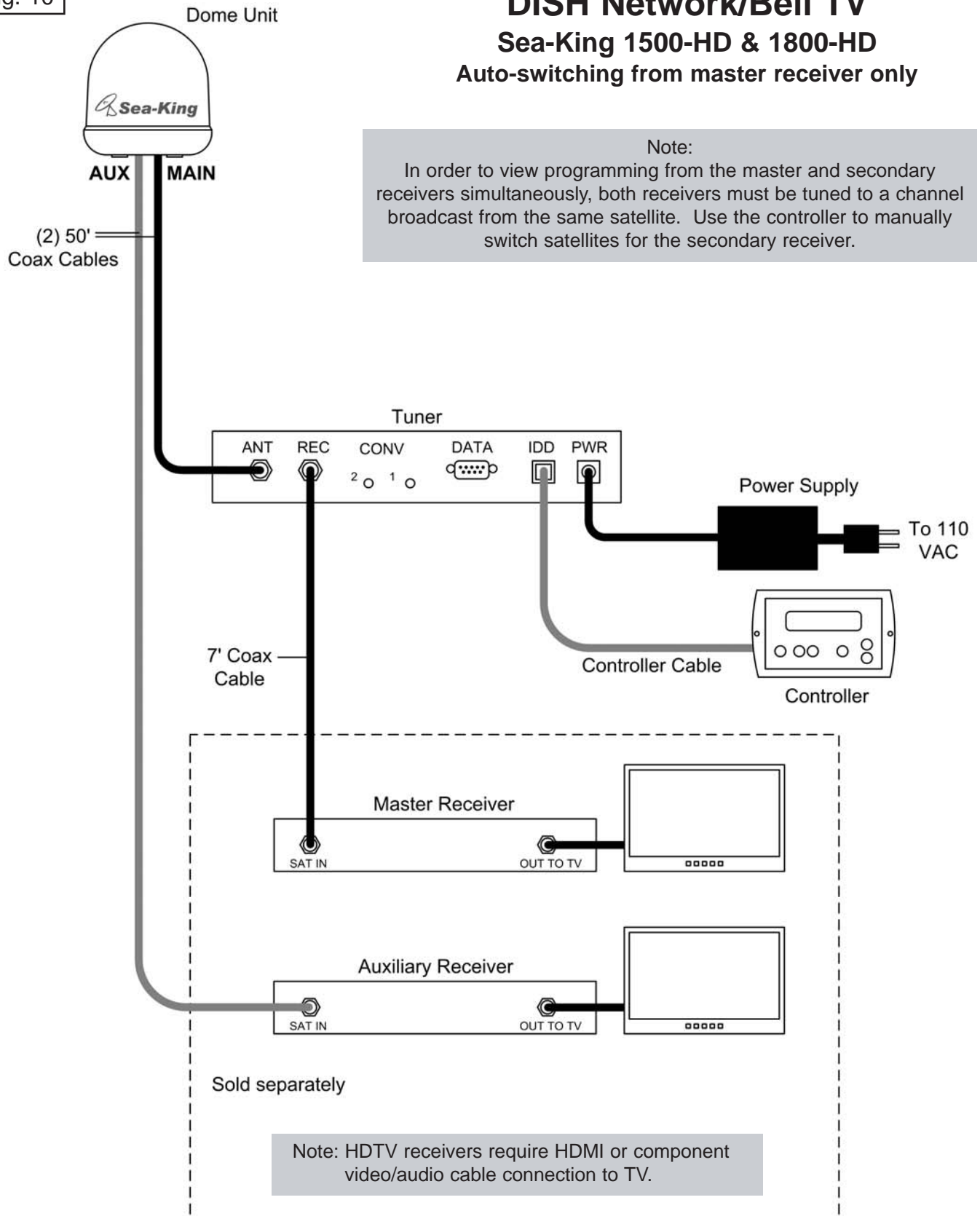
3. Perform a search to verify all connections are correct (see page 18).

Fig. 10

DISH Network/Bell TV Sea-King 1500-HD & 1800-HD Auto-switching from master receiver only

Note:

In order to view programming from the master and secondary receivers simultaneously, both receivers must be tuned to a channel broadcast from the same satellite. Use the controller to manually switch satellites for the secondary receiver.



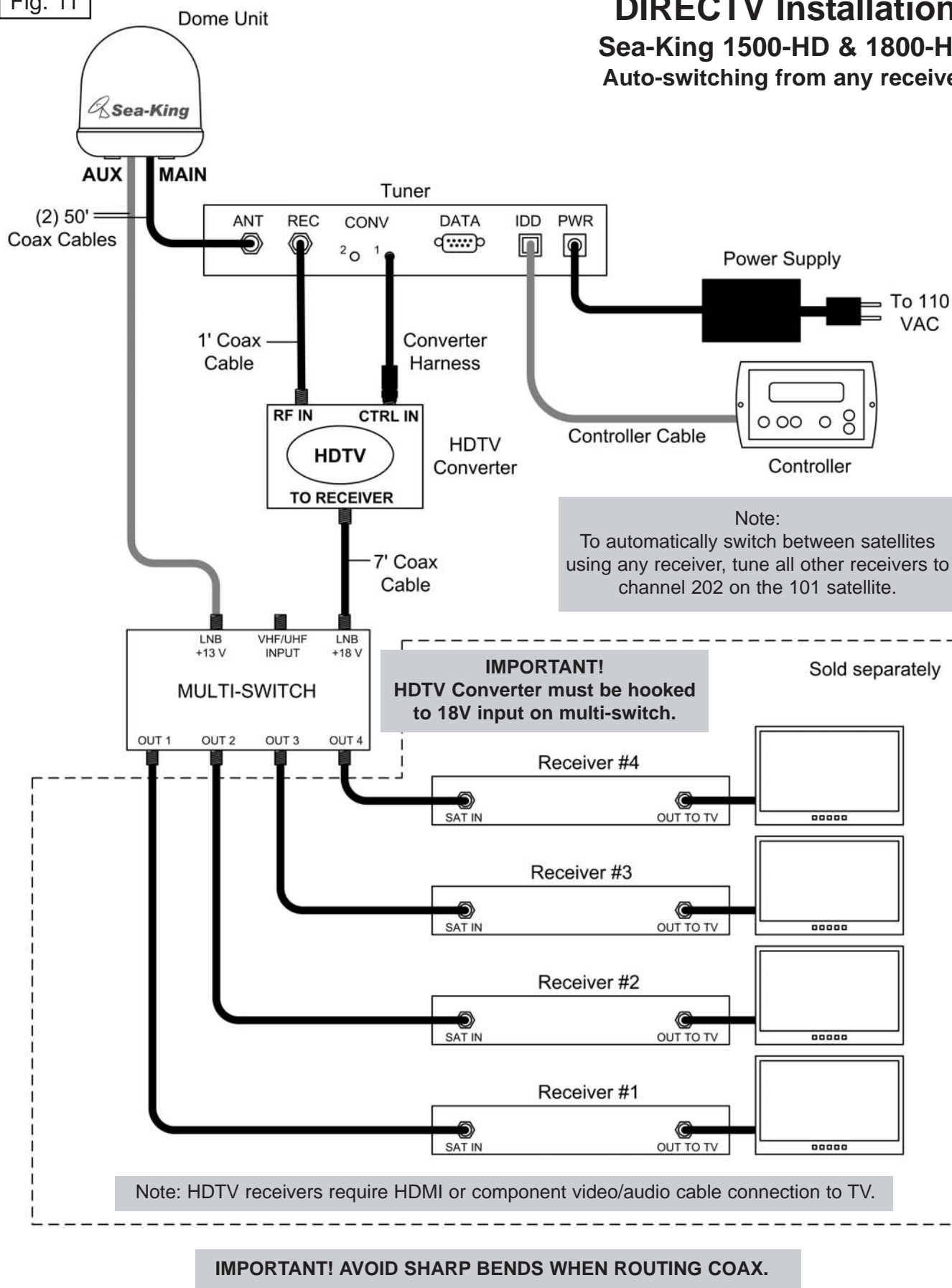
IMPORTANT! AVOID SHARP BENDS WHEN ROUTING COAX.

Fig. 11

DIRECTV Installation

Sea-King 1500-HD & 1800-HD

Auto-switching from any receiver





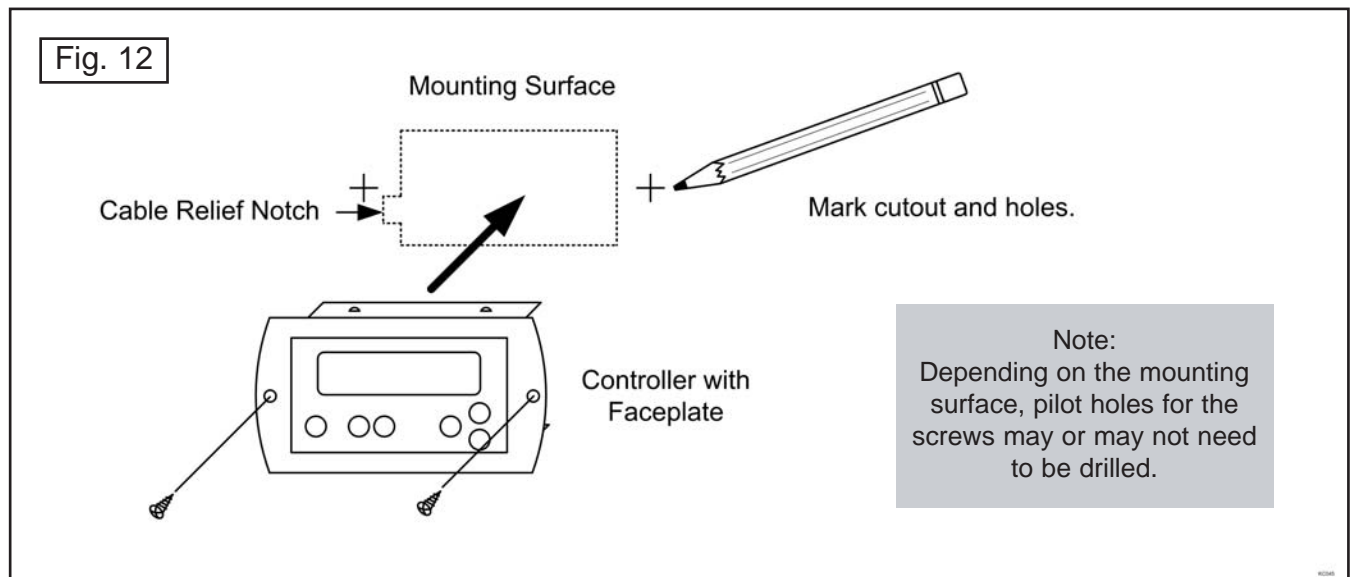
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OPTIONAL WALL MOUNT FACEPLATE (INCLUDED)

Note: If not using the faceplate, see faceplate removal instructions below.

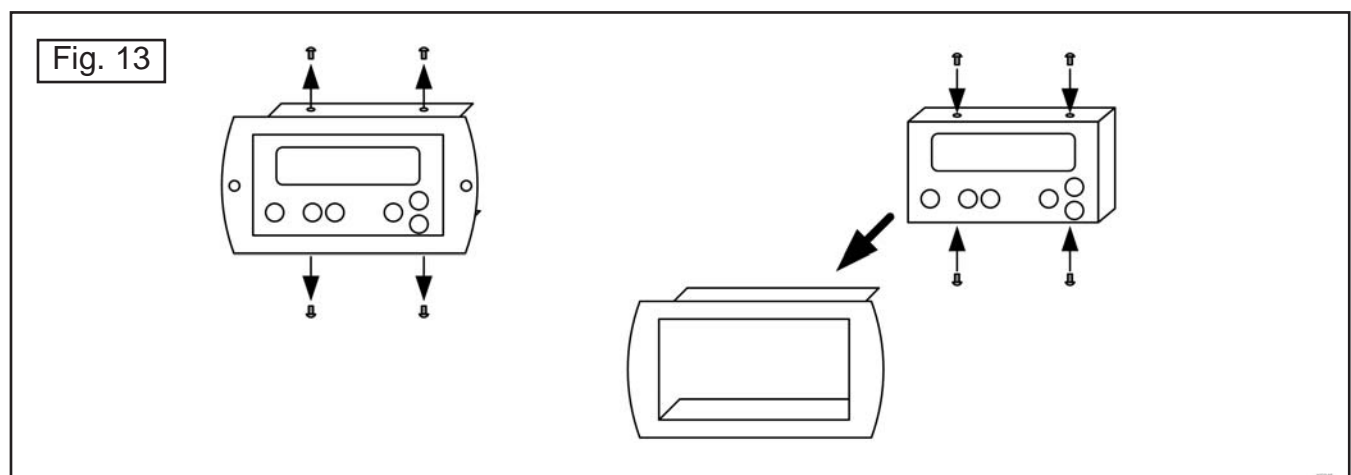
IMPORTANT! Depending on the thickness of the vessel wall, a relief notch may need to be cut for the cable. THE CABLE MUST NOT BE PINCHED OR BENT WHEN MOUNTING THE DISPLAY.

1. Use the Faceplate as a template to mark and cut out the mounting cavity, and if necessary, mark and drill the mounting holes (**Fig. 12**).
2. Mount Faceplate in wall with supplied screws.



The Faceplate is optional and can be removed as follows: (**Fig. 13**)

1. Remove 4 screws from Controller.
2. Slide Faceplate off of Controller.
3. Replace 4 screws.

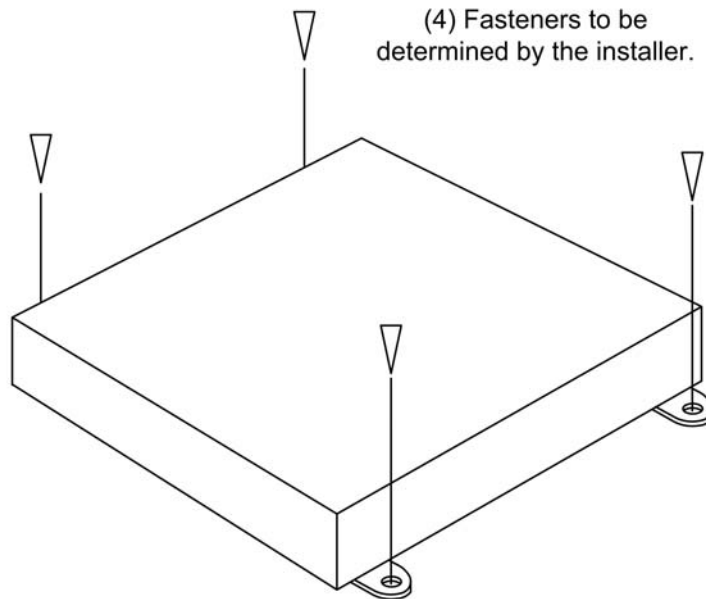


TUNER MOUNTING OPTIONS

You can mount the tuner or leave it freestanding:

- a) You can mount the tuner to an appropriate surface **(Fig. 14)**.
- b) You can leave the tuner freestanding. If space requirements dictate, the mounting feet can be snapped off.

Fig. 14



Note: The installer is responsible for determining the most appropriate fasteners to secure the tuner to the chosen surface.

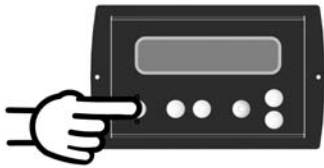
Depending on the mounting surface, pilot holes for the fasteners may or may not need to be drilled.

IMPORTANT! There must be a clear “line of sight” to the satellite (See Fig. 2, Page 3). Terrain, other boats, buildings, trees, masts, telephone poles, etc. can all block the satellite signal from reaching the dish.

Note: This example is for the DTV 101 satellite in Region 2-North Central. The information on your controller will vary depending on the satellite and region you have chosen (see pages 20-21).

1. Turn on TV and satellite receiver. “Searching for Satellite Signal” or similar should appear on TV.

2. Press **ON** Unit powers up, performs a self-diagnostic and loads software.



Unit begins searching for the selected satellite.

Unit has locked onto the selected satellite.

Note: The Sea-King must remain powered on to maintain a signal. If you are going to be stationary and wish to continue watching TV, **DO NOT TURN THE SYSTEM OFF.**

**POWER UP
PLEASE WAIT**

IDBx VER x.x

**RUN: SCAN ALIGN
NOW on? ==>**

**RUN: SCAN ALIGN
2-NORTH CENTRAL**

**RUN: SCAN ALIGN
DTV 101**

**RUN: LOCKED S XX
NOW on 101 ==>**

**RUN: LOCKED S XX
2-NORTH CENTRAL**

**RUN: LOCKED S XX
DTV 101**


AUTOMATIC SATELLITE SWITCHING

DIRECTV: Before using the automatic switching feature, you must configure the Sea-king and your receiver for your desired option. For switching options see pages 22-23.

DISH Network - Bell TV: Before using the automatic switching feature, you must configure the Sea-King and your receiver for your desired option. For switching options see page 25.

Your receiver may have already been configured for automatic satellite switching by the installer. You can determine this by looking at the Check Switch Installation Summary screen in your receiver, or call the King Controls Service Department at (952) 922-6889.

1. Simply choose your desired channel using the receiver's remote control. The Sea-King will automatically switch to the appropriate satellite.

DIRECTV: If you select an HD channel and the picture does not appear, the channel is located on an alternate satellite. Press the  button to select the alternate pair of satellites. See page 23 for details.

DISH Network HD: If you are unable to receive all of your HD programming, you will need to switch satellite trios. See page 25, **DISH 1000/1000a FOR DISH NETWORK HDTV** for trio information, and follow the instructions on page 20.

Note: For better performance when using the automatic satellite switching feature, change channels by selecting your program from the channel guide rather than channel surfing.

It is common for the picture to pixel or display an error message when the antenna is switching between satellites, or the signal has been temporarily blocked. PLEASE BE PATIENT. THE PICTURE WILL RETURN.

If an error message appears for an extended period, selecting CANCEL may help clear the message more quickly.

SET SATELLITE SERVICE


IMPORTANT!: If you choose any DISH Network or Bell TV option in steps 1-3 below, you must then run the check switch on pages 26-27.

All of the satellite options listed may not be available with your unit. If you cannot lock onto your chosen satellite(s), call the King Controls Service Department.

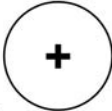

SATELLITE LIBRARY

DTV 101	DIRECTV at 101
DTV 101/ 110 hd	DIRECTV HDTV at 101 and 110*
DTV 101/ 119	DIRECTV HDTV at 101 and 119
Sat 110	DISH Network at 110
Sat 119	DISH Network at 119
DISH 61	DISH Network at 61.5
DISH 129	DISH Network at 129
DISH 148	DISH Network at 148
DISH 110/119	DISH Network at 110 and 119 (DISH 500)
DISH 1000	DISH Network HDTV at 110, 119, and 129 (DISH HD Western Arc with Locals)
DISH 1000a	DISH Network HDTV at 61.5, 110, and 119 (DISH HD Alternate with Locals)
EXPVU 82	Bell TV at 82 (formerly Bell ExpressVu)
EXPVU 91	Bell TV at 91 (formerly Bell ExpressVu)
DISH 72.5	DISH Network at 72.5
DISH 77.0	DISH Network at 77
BEV 82/91	Bell TV at 82 and 91 (formerly Bell ExpressVu)


*Note: The King Controls HD TV Converter Box (#9747 or #9747-AM) is required to receive HD programming from the DIRECTV satellite at 110.

1. Press  Unit goes into SET SATELLITE menu.

SET SATELLITE
■■■■■■■■

2. Press  or  Use the plus and minus buttons to display your selected satellite on the controller.

**Display selected
satellite on controller.**

3. Press  Sets satellite in memory. Unit moves to new selected satellite.

RUN: SWITCHING

RUN: LOCKED
Displays selected satellite

SET REGION (OPTIONAL)

Note: To reduce satellite acquisition time, you can set your current region.

1. Press

ON

Unit goes into IDLE/HOLD mode.

IDLE/HOLD SXX
NOW on 101 ==>
2. Press

MAIN

Unit goes into USER SETUP menu.

USER SETUP ==>
Rev xxxx sn xxxxx
3. Press

➡

Unit goes into SET REGION menu.

SET REGION
■■■■■■■■
4. Press

+

Find your location on the map below and determine which region you are in. Use the plus and minus buttons to display your region on the controller.

Display your region on
the controller.

or

-

5. Press

ENTER

Sets REGION into memory.

IDLE/HOLD SXX
NOW on 101 ==>

6. Press

ON

Unit searches based on new REGION.

RUN: SCAN ALIGN
DTV 101
- REGION OPTIONS:

1 NORTH WEST

2 NORTH CENTRAL

3 NORTH EAST

4 CENTRAL WEST

5 MIDDLE CENTRAL

6 CENTRAL EAST

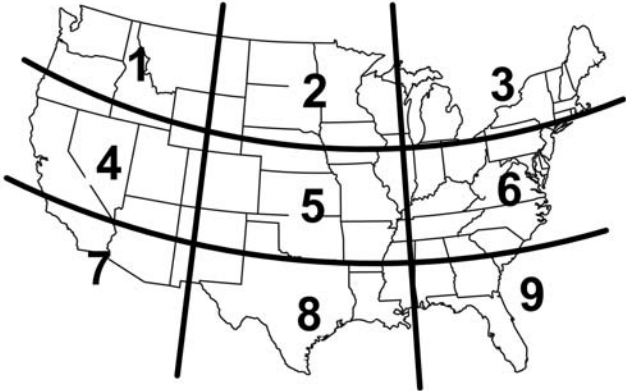
7 SOUTH WEST

8 SOUTH CENTRAL

9 SOUTH EAST

ALL REGIONS

0 RECALIBRATE


- Page 21

AUTOMATIC SATELLITE SWITCHING

DIRECTV

DIRECTV 101 SATELLITE ONLY

To receive programming from the DIRECTV 101 satellite only, choose the DTV 101 option (see page 20).

If you have a newer receiver or current software, choose the following dish configuration settings thru the receiver's satellite set-up menu screens:

Dish Type: 01: 18" Round Switch Type: 02: Multiswitch

If you have an older receiver, choose round dish-1 satellite.

101/119 AUTOMATIC SATELLITE SWITCHING

To automatically switch between the 101 and 119 satellites for DIRECTV, choose the DTV 101/119 option (see page 20).

If you have a newer receiver or current software, choose the following dish configuration settings thru the receiver's satellite set-up menu screens:

Dish Type: 02: 3-LNB (18 x 20") Switch Type: 02: Multiswitch

If you have an older receiver, choose oval dish-2 satellites.

HD PROGRAMMING FROM THE 110 SATELLITE

IMPORTANT! This King-Dome will receive available HDTV programming from DIRECTV Ku band satellites at 101°, 110° and 119° with the properly installed HD converter accessory. It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.

With the properly installed HDTV Converter and multi-switch (included), this Sea-King will allow you to receive the specially formatted HD signals from DIRECTV's 110 satellite and automatically switch between satellites 101/110 or 101/119 when simply changing channels (see the next page for instructions). Set your receiver the same as you would for 101/119.

Note: Any receiver can control the antenna switching if the last channel selected on all other receivers was on an odd transponder on the 101 satellite such as channel 202. (At the time of publication, channel 202 is broadcast on an odd transponder on satellite 101. This is subject to change. If in doubt whether channel 202 is still on an odd transponder, contact DIRECTV or call King Controls.)

The antenna can only receive programming from one satellite at a time. If you change channels on your main receiver, and the antenna has to change satellites, you may lose programming on other receivers.

You can selectively disable automatic satellite switching on individual receivers with the use of one or more tone block accessories. Please contact King Controls for configuration options.

Manual Switching: To disable automatic switching, manually select your desired satellite using the controller as shown on page 20.

SEA-KING CONFIGURATION: HD PROGRAMMING FROM THE 110 SATELLITE

IMPORTANT! Select your current region first. Failure to select your current region may result in extraordinary delays in channel acquisition (see page 21).

1. Make sure your current region is selected (see page 21).

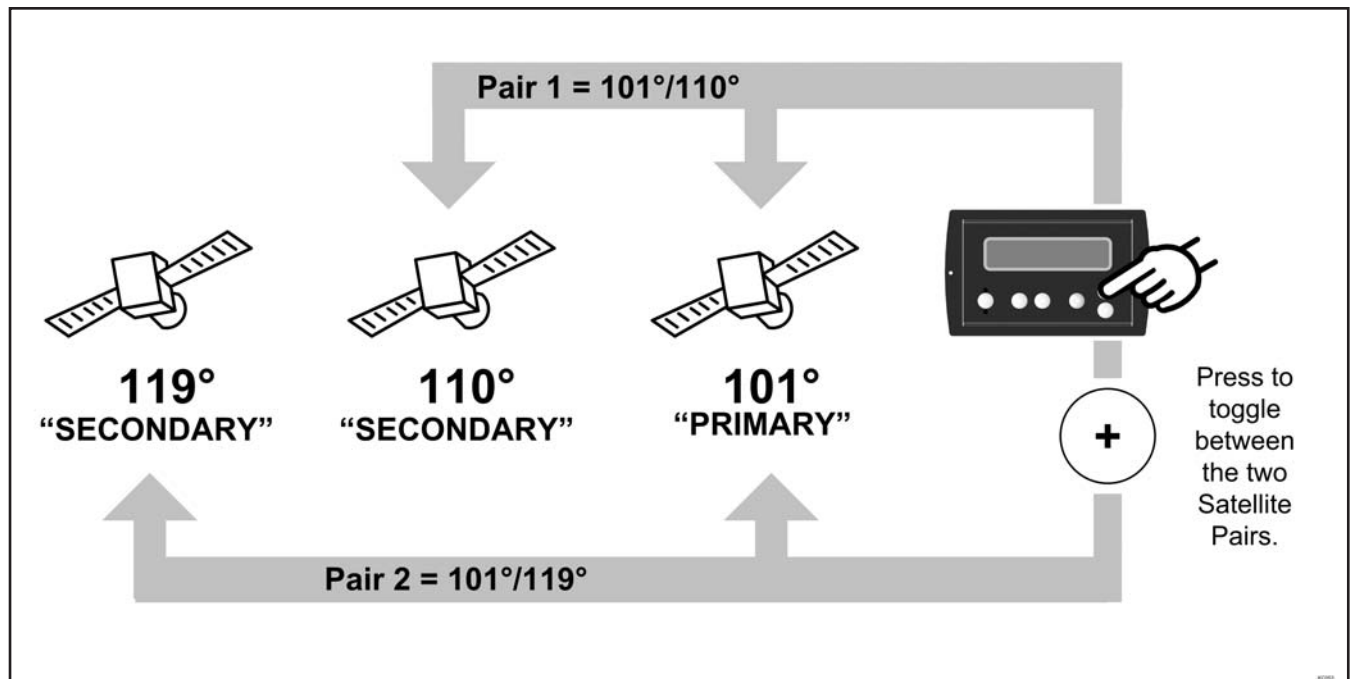
2. Select your satellite pair (see page 20).

SET SATELLITE
DTV 101/110hd

SET SATELLITE
DTV 101/119

Your channels are broadcast from 5 different satellite locations, and the antenna can be set to automatically switch between two satellites (101/110) or (101/119). If you select the (101/110) satellite pair on the controller, the antenna will automatically switch to the appropriate satellite when a channel broadcast from the 101 or 110 satellite is selected. In this example, if you select a channel that is broadcast from the 119 satellite, you will need to select the (101/119) satellite pair on the controller and then the antenna will automatically switch to the appropriate satellite when a channel broadcast from the 101 or 119 satellite is selected.

3. To change the selected satellite pair, simply press the  button on the controller.



Note: The program guide will show all channels available from the 101, 110, 119 satellites, however it may take up to an hour for this information to be downloaded into the receiver after the satellite is acquired. If all of your channels do not load in the guide within an hour, press the reset button on the front of your DIRECTV receiver.

When switching between satellites, the TV picture may be disrupted for a brief period while the receiver processes the signal from the satellite.



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AUTOMATIC SATELLITE SWITCHING

DISH Network - Bell TV

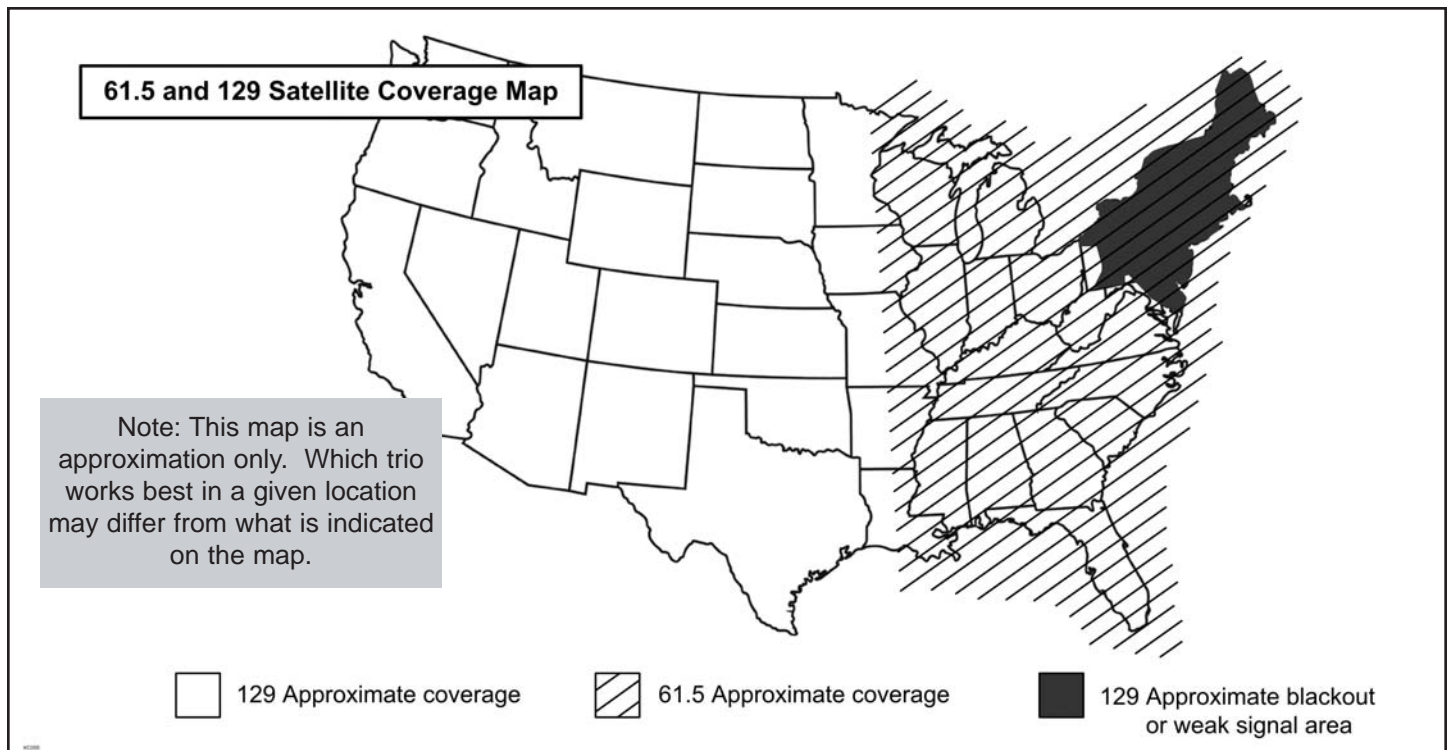
DISH 500 FOR DISH NETWORK

The Sea-King will automatically switch between the 110 and 119 satellites for DISH Network by using the receiver's remote control, after the receiver has been properly configured. Choose the DISH 110/119 option (see page 20) and then follow the instructions on pages 26-27.

DISH 1000/1000a FOR DISH NETWORK HDTV

DISH Network HD programming is broadcast from 4 satellites (61.5,110,119,129). The 61.5 and 129 satellites broadcast identical programming. The 61.5 is generally stronger in the eastern U.S. and the 129 in the western U.S. The map below shows the approximate coverage for each satellite.

Your Sea-King antenna can be easily configured to work with two different satellite trios (DISH 1000a: 61.5,110,119 or DISH 1000: 110,119,129). By choosing the appropriate trio that includes either the 61.5 or the 129 satellite based on where you are, you can receive all of your desired programming. Choose either DISH 1000 or DISH 1000a (see page 20) and then follow the instructions on pages 26-27.



BELL TV (May not be available in all areas due to service provider limitations.)

The Sea-King will automatically switch between the 82 and 91 satellites for Bell TV by using the receiver's remote control, after the receiver has been properly configured. Choose BEV 82/91 (see page 20) and follow the instructions on pages 26-27.

CHECK SWITCH PROCEDURE

DISH Network - Bell TV

IMPORTANT! The antenna must be on the ground, dock or motionless platform with no movement in order to configure the DISH HD receiver.

If you are an end user and the Sea-King is already permanently mounted, you can perform the configuration if the vessel is tied up tightly with no movement.

For automatic satellite switching, King Controls recommends using a DISH Network model 311 receiver for DISH 500, and a DISH Network model ViP211 or a ViP211k HDTV receiver for DISH 1000/1000a. Do not use dual tuner receivers or recorders.

If you do not have a clear view of the satellites, the switch will not load.

Note: The SW21 and SW64 switches are a receiver software configuration that is loaded into the receiver after running a check switch test with the dish locked on and configured for the appropriate service.

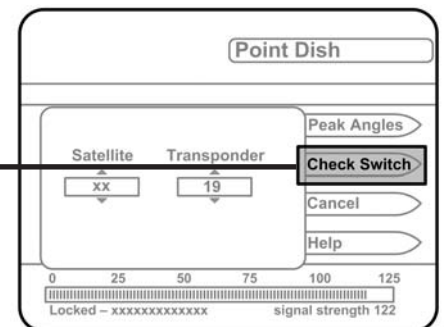
This one time procedure will not need to be repeated after successful installation, unless a) check switch test is run again while connected to a home dish system, b) check switch is run when a receiver is not connected, or c) you travel outside the coverage area of the pre-set satellite trio (DISH 1000/1000a only).

1. Make sure the Sea-King has locked onto the satellite(s) from the selection you made on page 20 by verifying the satellite option in the controller's display window.

2. On the receiver remote, press menu, 6, 1, 1.

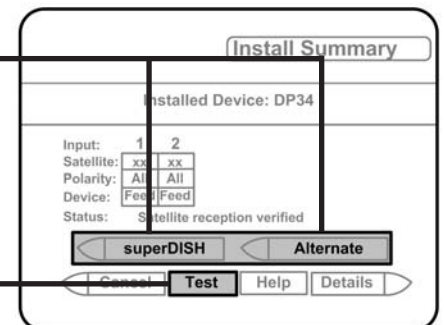
3. Highlight **Check Switch** and press **Select**.

Note: Some receivers may prompt you to select check switch a second time to initiate the test.



4. Make sure Superdish and Alternate boxes are **NOT** selected.

Note: Not all receivers will display a screen with options that include superdish and alternate boxes.



5. Highlight Test and press Select.

Screen graphics may vary.

The unit will perform a check switch test, and the dish will periodically move back and forth. (This process will take several minutes.)

6. When test is complete, a screen similar to one of the following should appear:
(Screen graphics may vary.)

**NO SWITCH DETECTED
or
INSTALLED DEVICE
UNKNOWN**

ALL SINGLE SATELLITES

Install Summary

NO SWITCH DETECTED

Input: 1 1 2 2
 Satellite: x x x x
 Polarity: x x x x

Status: Satellite reception verified

superDISH Alternate
 Cancel Test Help

DISH 500

Install Summary

Installed Device: SW21

Input: 1 1 2 2
 Satellite: 110 110 119 119
 Polarity: Odd Even Odd Even

Status: Satellite reception verified

superDISH Alternate
 Cancel Test Help

BELL TV 82/91

Install Summary

Installed Device: SW21

Input: 1 1 2 2
 Satellite: 82 82 91 91
 Polarity: Odd Even Odd Even

Status: Satellite reception verified

superDISH Alternate
 Cancel Test Help

**MUST SHOW
"SW21"**

NO "X"s

DISH 1000

Installation Summary

Satellite Input

Port:	1	2	3		
Satellite:	119	110	129		
Trans:	OK	OK	OK		
Device:	Twin	Twin	Sgl		

Status: Reception Verified

Switch: **SW64**

☐ SuperDISH ☐ Alternate

Cancel Test Help

DISH 1000a

Installation Summary

Satellite Input

Port:	1	2	3		
Satellite:	119	110	61.5		
Trans:	OK	OK	OK		
Device:	Twin	Twin	Sgl		

Status: Reception Verified

Switch: **SW64**

☐ SuperDISH ☐ Alternate

Cancel Test Help

NO "X"s

**MUST SHOW
"SW64"**

If indicated results are not obtained, go back to Step 1 and run test again. Contact King Controls if the check switch fails to load after 4 attempts.

7. Save the settings, exit to the main menu screen and wait for your programming to download.
8. **DISH 1000/1000a ONLY:** Verify your saved settings show your desired satellite trio (110, 119, 129 or 110, 119, 61.5).

Check switch is complete.

SYMPTOM	POSSIBLE SOLUTION
Controller does not power up.	<p>Check: tuner is connected to power supply.</p> <p>controller is connected to tuner.</p> <p>power supply is plugged into 110 VAC outlet.</p>
<p>Controller remains in one of the following conditions:</p> <p>POWER TRIP</p> <p>ANT COM ERROR?</p> <p>TUNER COM ERROR?</p>	<p>Unplug tuner for 10 seconds, then plug back in.</p> <p>Check coax cables and connections between tuner and dome unit.</p> <p>Verify voltage on coax at dome unit is 24 volts.</p>
<p>Controller displays AZ FAULT.</p> <p>Dish cannot rotate</p>	<p>Make sure shipping bolt is removed.</p> <p>Disconnect power supply for 15 seconds, then reconnect.</p> <p>Perform OPTION 21 RE-INITIALIZE and 0-RECALIBRATE (Pages 30-31).</p> <p>Reseat ribbon cables (inside dome unit).</p>
Display reads EL FAULT.	<p>Disconnect power supply for 15 seconds, then reconnect.</p> <p>Restart system. If problem persists, perform OPTION 21 RE-INITIALIZE and 0-RECALIBRATE (Pages 30-31).</p> <p>Reseat ribbon cables (inside dome unit).</p>

SYMPTOM	POSSIBLE SOLUTION
Only getting signal on 1/2 of transponders.	<p>Kinked or sharply bent coax cable.</p> <p>Verify coax cables are properly terminated with SNAP-N-SEAL® connectors only.</p> <p>Verify receiver is operating properly.</p> <p>Verify LNB type is set correctly.</p>
Unit never locks on or locks on and drifts off of satellite.	<p>Atmospheric moisture. Unit will lock on as weather improves.</p> <p>Check for obstruction in sky in direction of satellite. Select another satellite and verify unit locks on.</p> <p>Verify coax cables are properly terminated with SNAP-N-SEAL® connectors only.</p> <p>Perform OPTION 21 RE-INITIALIZE and 0-RECALIBRATE (Pages 30-31).</p> <p>Inspect all coax cables and verify connections are snug but not overly tight (inside and outside dome unit).</p>
For DIRECTV HDTV Programming only:	
When a channel from the guide is selected, "Searching for Satellite" appears on the screen.	The new channel selected is not found within the currently selected pair. Press (+) to change the switching pair between 101/110 and 101/119 as necessary.
When a channel from the guide is selected, a different program appears on the screen.	The new channel selected is not found within the currently selected pair. Press (+) to change the switching pair between 101/110 and 101/119 as necessary.

OPTION 21 RE-INITIALIZE and 0-RECALIBRATE

1. Press **MAIN** as needed
to enter DEALER SETUP menu.



**DEALER SETUP ==>
CODE 0**

2. Press **+** as needed to scroll up to CODE 13.
Press **ENTER**

**DEALER SETUP ==>
CODE 13**

3. Press **→** as needed to enter SET OPTION menu.

**SET OPTION
OPTION 0**

4. Press **-** as needed to scroll down to OPTION 21.
Press **ENTER** to re-initialize software.

**SET OPTION
OPTION 21**

**LOADING
PLEASE WAIT**

5. Wait until display shows OPTION 0.
(May take up to 30 seconds.)

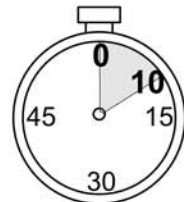
**SET OPTION
OPTION 0**

- Press **ENTER** and **-** simultaneously to shut
system off.

off

6. Disconnect power (110 volt power supply)
from tuner for 10 seconds, then reconnect.

WAIT 10 SECONDS!



7. Wait until controller shows "off" then press **ON** to
start system.

off

8. Wait for system to load.

**POWER UP
PLEASE WAIT**

IDB2 VER x.x


When display shows RUN: SCAN ALIGN,

press  to enter IDLE/HOLD mode.

**IDLE/HOLD SXX
NOW on ? ==>**

9. Press  to enter USER SETUP menu.

**USER SETUP ==>
Rev xxxx sn xxxxx**

10. Press  to enter SET REGION menu.

**SET REGION
■■■■■■■■**

11. Press  or  as needed to display
0-RECALIBRATE.

**SET REGION
0-RECALIBRATE**

12. Press  System recalibrates gyros.

**RUN: SCAN ALIGN
0-RECALIBRATE**

13. Press  to exit IDLE/HOLD mode.

RUN: SCAN ALIGN

System will continue to run during recalibration process. Recalibration is complete when 0-RECALIBRATE no longer scrolls across bottom of display with search information. May take up to 10 minutes.

14. System continues to run after recalibration is complete.

**RUN: SCAN ALIGN
DTV 101**

The Sea-King Satellite System has been designed to be maintenance and trouble free.

For optimum signal strength, keep the dome clean from dirt, bugs, and other debris. Periodic washing of the dome with mild soap and water is recommended.

IMPORTANT! Do not power wash the Sea-King.

If you plan on storing your vessel for long periods of time, it is recommended that the system be put through a search procedure on a quarterly basis to keep all moving parts in good working order.

If you have any comments or questions, please contact the King Controls Service Department at (952) 922-6889, or email King Controls at info@kingcontrols.com.

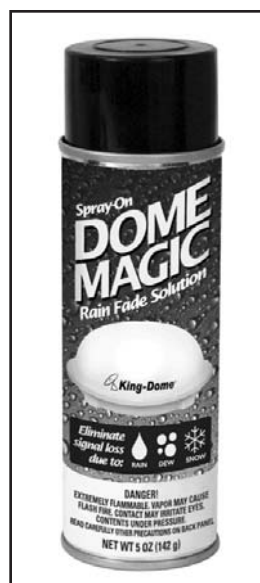
Rain Fade

Rain or dew on the dome can cause signal interference and make the digital picture freeze, pixel or go out altogether. This loss of signal is commonly referred to as “rain fade” and is caused by the combination of water in the atmosphere and water on the dome surface.

To minimize this issue and eliminate the effects of water on the dome, apply King Controls **Dome Magic**® rain fade solution to the dome. This will prevent water from sticking to the dome surface and blocking the signal. For additional details on **Dome Magic**® rain fade solution please contact your authorized Sea-King dealer or call King Controls at (952) 922-6889.



Single Application Packet #1830-SP



Spray Can #1830

SECTION 10

LIMITED WARRANTY

Every new King Controls Satellite System is thoroughly inspected and tested before leaving the factory, and is covered by the following two year parts and one year labor limited warranty from the date of original purchase:

- Two year parts warranty: The customer is not responsible for the cost of replacement parts if the original part is determined to be defective under the terms of the warranty. The customer is responsible for the cost of replacement parts after two years.
- One year labor warranty: The customer is not responsible for labor costs to repair unit if unit falls under the terms of the warranty. Any warranty labor outside of that performed at the factory is not covered unless the product has been installed by an authorized dealer/installer or OEM manufacturer. The customer is responsible for all labor costs after one year.

Should any trouble develop during the warranty period, contact King Controls. You must contact King Controls before the warranty period expires. The customer must supply proof of purchase (such as a dated sales receipt) when requesting warranty service. If customer cannot supply proof of purchase, warranty period shall start 30 days after date of manufacture.

Only King Controls and certified dealers are authorized to perform warranty evaluations and repairs. Depending upon the problem, King Controls may authorize the dealer to perform the necessary repairs, or may have the unit returned to King Controls for repairs.

A certified dealer must not perform any repair without first contacting King Controls for a Service Order Number. King Controls will advise the dealer on how to proceed with any repairs.

If it is determined that the unit needs to be returned to King Controls, customer must return COMPLETE product, freight prepaid, to: **King Controls, 11200 Hampshire Avenue South, Bloomington, MN 55438-2453.**

If inspection shows the trouble is caused by defective workmanship or material, King Controls will repair (or at its option, replace) without charge.

When returning product, King Controls will supply an RMA number (Return Merchandise Authorization). This number must be clearly written on the box. Failure to clearly write RMA number on box may result in delays in processing claim. Along with product, customer should include in the box: his/her name, address, daytime phone number, proof of purchase and description of the problem.

This warranty does not cover installation and external wiring, or remanufactured units. This warranty is not transferable from the original owner.

Due to the expanding and changing TV market, King Controls cannot be held responsible for changes made to satellite services. Software updates to address such issues are not covered under warranty.

This warranty also does not apply where:

- The product has been abused, misused, improperly installed or improperly maintained.
- Repairs have been made or attempted by others that are not certified by King Controls to do such repairs.
- Repairs are required because of normal wear and tear.
- Alterations have been made to the product.
- The dome cover has been removed without authorization.
- Supplied grease not used in the external coax connections as specified in the instructions.
- Damage has been caused by power washing.
- Circumstances beyond the control of King Controls cause the product to no longer operate correctly.
- Customer is not the original owner.

In no event shall King Controls be liable for any indirect, incidental, or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.

King Controls disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose," after the one year term of this warranty.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Notes:

Notes:

Notes:



11200 Hampshire Avenue South, Bloomington, MN 55438-2453
Phone: (952) 922-6889 Fax: (952) 922-8424

www.kingcontrols.com